

REMARKS

Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Title

The title has been objected to as not being descriptive. In response, a new title, which is more clearly indicative of the claimed invention, is presented herein for the Examiner's consideration and approval.

Specification

The specification has been amended to place it in better form. It is respectfully submitted that no new matter has been added.

Claims Status

Claims 1 through 8, 13 through 16, and 18 remain pending in the application. Claims 9 through 11 and 17 have been canceled. Claims 1 through 8, 13 through 16, and 18 have been amended to even more succinctly define the invention and/or to improve their form. It is respectfully submitted that no new matter has been added. Claims 1, 5, 13, and 18 are the only independent claims pending in the application.

Allowed Claims/Allowable Subject Matter

It is acknowledged with appreciation that Claims 5 through 8 and 13 through 16 are allowed. It is respectfully submitted that the amendments to Claims 5 through 8 and 13 through 16 presented herein do not affect their allowability.

It is also acknowledged with appreciation that Claims 4 and 12 are merely objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claims and any intervening claims. As above-noted, Claims 4 and 12 have been canceled.

Art Rejections

Claims 1 through 3 and 9 through 11 are rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,532,347 (Watanabe, et al.).

Claims 17 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Watanabe, et al.

The rationale underlying the foregoing art rejections is succinctly set forth in the Official Action. The rejections are respectfully traversed.

Response to Rejections

Amended Claim 1 calls for an electrophotographic image forming system for forming an electrostatic latent image by applying an AC voltage to a charger contacting an image carrier and thereby charging a surface of the image carrier that includes a detector for detecting an AC charge current by applying the AC voltage to the charger in either a non-discharge region or a discharge region. A detection characteristic switching unit is adapted to switch detection characteristics of the detector, between a time when the detector detects an AC charge current in the non-discharge region and a time when the detector detects an AC charge current in the discharge region. An AC voltage decision unit decides an AC charge voltage to be applied to the charger during image formation based on a detected AC charge current in the non-discharge region and a detected AC charge current in the discharge region.

Watanabe, et al. detects an AC charge current in both a non-discharge region and a discharge region of an electrifying roller 2. Watanabe, et al. discloses applying peak-to-

peak voltages to three ports in each of the discharge area and the undercharge area. The alternating current values are measured at the several ports. A relationship between the peak-to-peak value of the voltages and the alternating current values for each of the areas is calculated according to an equation for each of the areas. A central circuit 13 switches the peak-to-peak voltage to be applied to the electrifying roller 2 to V_{pp} , which is calculated according to another equation, which is derived from the other two equations. See, for example, column 9, lines 57 through column 10, line 60. In Watanabe, et al., the detection characteristic used in the non-discharge region is the same as the detection characteristic used in the discharge region when detecting the AC charge current 14. It is respectfully submitted that Watanabe, et al. neither discloses nor suggests switching detection characteristics between the non-discharge region and the discharge region. Accordingly, it is respectfully submitted that amended Claim 1 is allowable over Watanabe, et al.

Amended independent Claim 18 calls for a storage medium for storing a computer program for controlling electrophotographic image formation that forms an electrostatic latent image by applying AC voltage to a charger contacting an image carrier and thereby charging the surface of the image carrier, wherein the computer program causes a computer to execute a method of forming an electrostatic latent image by applying AC voltage to a charger contacting an image carrier and thereby charging the surface of the image carrier. A first detection step detects an AC charge current in a non-discharge region. A second detection step detects an AC charge current in a discharge region using a current detection characteristic different from a current detection characteristic used in the first detection step. A decision step decides an AC charge voltage applied to the charger during image formation based on the detection results obtained in the first detection step and the second

detection step. A control step controls the decided AC charge voltage applied to the charger during image formation.

Accordingly, it is respectfully submitted that amended independent Claim 18, which includes features directed to switching a detection characteristic, also is patentable over Watanabe, et al.

Dependent Claims

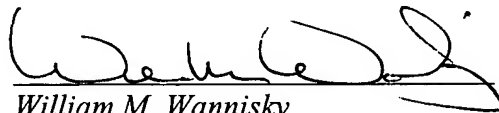
Claims 2 through 4 depend directly from Claim 1 and are allowable by virtue of their dependency and in their own right for further defining Applicant's invention. Individual consideration of these dependent claims is respectfully requested.

Closing Comments

It is respectfully submitted that all of the claims on file are allowable over the art of record and that the application is in condition for allowance. Favorable reconsideration and early passage to issue of the present application are earnestly solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our New York office at the address shown below.

Respectfully submitted,



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